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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,424	03/08/2000	Satoru Wakao	35.G2550	1497

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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

HO, THOMAS M

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 06/28/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/521,424

Applicant(s)

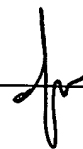
WAKAO ET AL.

Examiner

Thomas M Ho

Art Unit

2134



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 38-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The amendment of 4/27/04 has been received and entered.
2. Claims 38-73 are pending.

***Claim Rejections - 35 USC § 102***

3. ~~The following is a quotation of the appropriate~~

A method for operating a portable authorization device paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims are 38-48, 50-56, 58-64, 66-72 rejected under 35 U.S.C. 102(b) as being unpatentable over Friedman, US Patent 5,499,294.

In reference to claim 38:

Friedman(Column 5, lines 52 - Column 6, line 1) discloses an apparatus for generating additional data which is used for checking whether a digital image encoded by a predetermined encoding format is changed or not, (where the predetermined encoding format is an industry standard format image file), the apparatus comprising:

- A calculation unit adapted to perform a predetermined calculation of the digital image and confidential information, where the predetermined calculation is the encrypted hash, (Column 4, lines 34-36) & (Column 4, lines 55-67) and the confidential information is the private key
- A generating unit coupled to said calculation unit and adapted to generate the additional data using a result of the predetermined calculation, where the generating unit is the unit which uses a result of the predetermined calculation, the digital signature, and the image to generate additional data to check if the digital image encoded has been changed or not. (Column 6, lines 2-52)

In reference to claim 39:

Friedman discloses an apparatus for checking whether a digital image encoded by a predetermined encoding format is changed or not, the apparatus comprising:

- An inputting unit adapted to input the digital image and first additional data used for checking whether the digital image is changed or not, where the first additional data is the digital image file used to check whether the digital image changed or not. (Column 6, lines 10-15)
- A calculation unit adapted to perform a predetermined calculation using the digital image and confidential information, where the calculation unit calculates the encryption of the hash, and the confidential information used is the private key. (Column 5, lines 52-67)
- A generating unit coupled to said calculation unit and adapted to generate second additional data using a result of the predetermined calculation, where the second

additional data is the general authentication data created by the authentication system which uses the encrypted hash result of the predetermined calculation.

- Wherein said apparatus is adapted to check whether the digital image is changed or not using the first additional data and the second additional data, where authentication apparatus uses the original image and digital signature, and the second additional data produced by the authentication system to compare for differences and see if the digital image is changed or not.

Claim 40 is rejected for the same reasons as claim 38.

Claim 41 is rejected for the same reasons as claim 39.

In reference to claim 42:

Friedman(Column 6, lines 2-52) discloses an apparatus according to claim 38, wherein the additional data is also used for checking integrity of the digital image, where the additional data is the data produced by the authentication system to compare against the original file data for mismatches to see if the digital image has been altered or not.

In reference to claim 43:

Friedman(Column 6, lines 2-52) discloses an apparatus according to claim 38, wherein the generating unit is adapted to use a one-way function to generate the additional data, where the one-way function is the function used to generate a hash so that the authentication apparatus may compare it with the decrypted image hash.

In reference to claim 44:

Friedman(Column 6, lines 2-52) discloses an apparatus according to claim 38, wherein the generating unit is adapted to use a secret key cryptosystem to generate the additional data, where the secret key cryptosystem is used to decrypt the image to generate the additional data necessary to compare the digital images.

In reference to claim 45:

Friedman (Column 7, line 45 - Column 8, line 9) discloses an apparatus according to claim 38, wherein the confidential information is information unique to the apparatus, where private key is unique to the apparatus.

In reference to claim 46:

Friedman(Column 7, lines 45-56) discloses an apparatus according to claim 38, wherein the confidential information is information unique to an external apparatus connected to the apparatus in its creation process, wherein the confidential information is the private key which may be unique to the manufacturer who must ensure that the private key remains secret.

In reference to claim 47:

Friedman(Column 7, line 58-66) & (Column 8, lines 1-9) discloses an apparatus according to claim 38, wherein the confidential information includes first information unique to the apparatus, and second information unique to an external apparatus connected to the apparatus, where the

first information and second information unique to the apparatus is the private key, and is connected through the initial secure microprocessor generation process.

In reference to claim 48:

Friedman (column 4, lines 30-45) discloses an apparatus according to claim 38, wherein the apparatus is a digital camera or an apparatus including a digital camera.

In reference to claim 50:

Friedman (Column 6, lines 2-52) discloses an apparatus according to claim 39, wherein the first and second additional data is also used for checking integrity of the digital image, where the first data is the image file, and the second data the authentication data produced by the authentication system used to compare against the image file to determine the integrity of the image.

In reference to claim 51:

Friedman (Column 6, lines 2-52) discloses an apparatus according to claim 39, wherein the generating unit is adapted to use a one-way function to generate the second additional data, where the one way function generates a hash of the image for comparison.

In reference to claim 52:

Friedman (Column 6, lines 2-52) discloses an apparatus according to claim 39 wherein the generating unit is adapted to use a secret key cryptosystem to generate the second additional

data, where a secret key cryptosystem, public and private key cryptography is used to decrypt the digital signature.

Claims 53-55 are rejected for the same reasons as claims 45-47 respectively.

In reference to claim 56:

Friedman(column 4, lines 30-45) discloses an apparatus according to claim 39, wherein the inputting unit is adapted to input a digital image and additional data generated in a digital camera or an apparatus including a digital camera.

Claim 58-64,66-72 is rejected for the same reasons as 42-48, 50-56 respectively.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 49, 57, 65, 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman.

In reference to claim 49:



Friedman fails to explicitly disclose an apparatus according to claim 38, wherein the apparatus is a scanner.

The examiner takes official notice that a scanner is a well known image processing apparatus in the art, and like a digital camera, also equipped with the means to acquire images of certain objects. Additionally scanners may also attach to a computer or external system in the same way as a digital camera, such as through the use of a USB port.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the image authentication mechanism of Friedman and apply it for use with a scanner given the benefit of being able to also authenticate images acquired by scanner in addition to a digital camera.

Claim 57, 65, 73 is rejected for the same reasons as claim 49.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues on page 2 of section Remarks:

The office action asserts that textual information of Friedman corresponds to confidential information. However, such information is not confidential. Accordingly, Applicants submit

that Friedman fails to disclose or suggest at least the feature of performing a predetermined calculation using digital image and confidential information.

Applicant's arguments are considered moot with regards to the new rejections asserting the private key of Friedman as corresponding to confidential information. The Examiner thereby holds that Friedman does indeed disclose or suggest at least the feature of performing a predetermined calculation using digital image and confidential information.

### ***Conclusion***

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of the final action and the advisory action is not mailed under after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension pursuant to 37 CFR 1.136(A) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M Ho whose telephone number is (703)305-8029. The examiner can normally be reached on M-F from 8:30am – 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached at (703)308-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.

TMH

June 15<sup>th</sup>, 2004

  
GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100